RADIOCOMMUNICATIONS APPROVALS

ACA Compliance & Labelling Requirements

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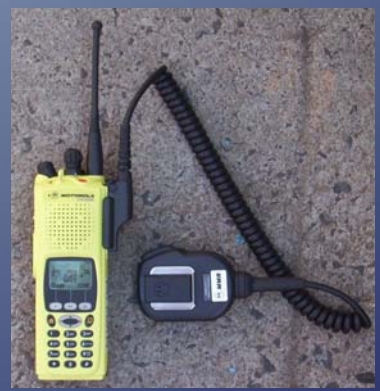
INTRODUCTION

- ACA
- Regulatory Framework
- Labelling Requirements for C-Tick
- Compliance Folder



Australian Communications Authority (ACA)

- Federal Government Agency has statutory responsibility under the Radiocommunications Act 1992 to manage the spectrum
- Controls use and performance of devices that use the spectrum including unintentional emitters
- Also controls use and performance of telecommunications devices

Compliance Framework

- Manufactures, importers or authorised agents must comply with relevant standards prior to marketing
- Standards developed by Standards Australia
- Compliance by Self Declaration
  - Obtain proof of compliance
  - Affix compliance label
  - Maintain supporting documentation

Who Is Affected?

- Radiocommunications standards compliance labelling scheme applies to:
  - Any person, business or company that is the point of supply of Radiocommunications products to the Australian market
    - Australian based manufacturers/assemblers
    - Importers of Radiocomm for sale or use in Australia
    - Authorised agents or importers

Mandatory Standards

- Mandatory standards implemented by the ACMA
- Known as Radiocommunications Standards
- Are applied to a range of radio communication services
  - VHF & UHF Land mobile Equipment
  - VHF Maritime mobile
  - Cordless telephone
  - Short range devices
  - EPIRBS, Emergency beacons
  - 27MHz / UHF CB Radios etc
- Mandatory standards will be progressively introduced for new devices
  - VHF & UHF Digital Land mobile Equipment etc
- Radio standards developed by Standards Australia

Radio Standards

- Called up by the mandatory standards
- Developed by Standards Australia
  - AS/NZS 4295: VHF & UHF Land mobile Equipment
  - AS/NZS 4415.2: VHF Maritime mobile (Non DSC)
  - AS/NZS 4281: Cordless telephone
  - AS/NZS 4268: Short range devices
  - AS/NZS 4365: UHF CB Radios etc
- Mandatory standards can modify the Australian Standard
- Eg UHF CB mandatory standard adds an extra clause to AS/NZS 4365 relating to tone calling

Points to note

- Mandatory standards are regulatory instruments
- Compliance is to the mandatory standard and not the Australian Standard
- Some mandatory standards contain grandfather clauses when the Australian Standard is updated
- However others do not
- Standards other than the prescribed Australian standards cannot be used.
- Eg EN 300 086, EN 300 220, FCC part 90,

Standards To Prevent Interference

- All radio-communications devices can cause interference
- Performance requirements specified in the mandatory and Australian standards
- Mandatory standards define the applicable compliance level

Other Requirements

- EMC
  - Charger , Accessories, Car Kits
- Human Exposure to RF
  - EMR, SAR
  - Body Worn SAR applicable for Hands Free Kit
- Safety
  - Power adapters/Chargers, Handset

Electromagnetic Compatibility

- AS/NZS CISPR22 (EN55022)

  Interference Characteristics of Information Technology Equipment (may apply depending on the product)

- C-tick mark not to be used for devices covered by Telecoms Labelling Notice
- Charger and accessories may be C-ticked

Human Exposure to RF

Australian Communications Authority

- The Radiocommunications (Electromagnetic Radiation (EMR) -Human Exposure) Standard 2003 *(EMR Standard 2003)*
  - "Standard" sets limits for human exposure to EMR from specified mobile/portable Radiocommunications Transmitters
  - Created by Australian Communications Authority
  - Specifies ARPANSA (ICNIRP) Limits
  - Defines 3 SAR test methods

Human Exposure to RF

Australian Communications Authority

- The Radiocommunications (Compliance Labelling-Electromagnetic Radiation) Notice 2003

  (EMR Labelling Notice)

  - Register with ACA to use compliance mark
  - record keeping, supporting documentation
  - Testing and report requirements
  - Laboratory accreditation
  - Compliance levels
  - Labeling requirements
  - Declaration of Conformity (DoC)

Specific Absorption Rate (SAR) Limits

Based on ICNIRP

	Controlled / Occupational	Uncontrolled / General Public
Whole Body Averaged SAR	0.4 W/kg	0.08 W/kg
Spatial peak -Head & Torso	10 W/kg	2 W/kg
Spatial peak -Limbs	20 W/kg	4 W/kg

SAR measured in a 10 gram cube of tissue

ACA EMR Standard 2003

Assessment Methods for Devices Exceeding Power Threshold

User Position	Applicable Frequency Range	ACA Evaluation Method
> 20 cm from Human Body	300 kHz to 100 GHz	Power density or Field Strength Reference Level measurements - EMR Meter AS2772.2
< 20 cm from Human Body	150 MHz – 5800 MHz	SAR measurements Push-to-Talk / Body Worn devices – -SAR per Schedule 2
Close Proximity to Human Ear	300 MHz – 3000 MHz	SAR Measurements at the ear Mobile/Portable Phones - -SAR per Schedule 2 or EN50361
< 2.5 cm from Human Body	300 kHz-100 GHz	SAR test, or if less than 20 mW, - complies without testing

Applicable SAR Tests

- Body worn SAR tests applicable for Hands Free Kits
- Applicable for devices not used at the ear
- Test house must be accredited to ACA EMR Standard Schedule 2 and EN50361

Safety Requirements

- Power Adapter and Plug Packs generally fall outside of the ACMA (federal) safety requirements.
- These devices are considered “Prescribed Items” and must obtain Electrical Authority Approval. (state government)
- AS/NZS 60950 (EN 60950)
  - Switch mode Charger
- AS/NZS 3108
  - Transformer Power Adapters

Compliance Arrangements

3 Levels of compliance requirements based on risk of interference

Level 1

- Radiocommunications device where non-compliance would have low interference impact on other RF spectrum users
  - Radio-controlled toys, garage door openers, door bells, etc.

Compliance Arrangements

Level 2

- Applies to devices whose non compliance would have a moderate risk of causing interference
- Presently only applies to spread spectrum devices

Compliance Arrangements

Level 3

- Applies to devices whose non compliance would have a high risk of causing interference
- Applies to most two way radio equipment like land mobile radios, UHF CB's, paging stations etc.
- Includes safety devices like EPIRB's

No Mandatory Standard!

- Applies to new devices where a standard has not yet been mandated or developed
- Currently applies to digital land mobile radios
- ACMA can authorize such devices.
- Process is called Spectrum Impact Assessment
- Based upon ACMA assessment of suitable test data from an accredited laboratory
- Item is approved so that it can be licenced and used.
- Assessment costs $A 205
- Analogue report also required to be submitted

Compliance Folder Contents

- A Technical file contains specified documents to support a Declaration of Conformity (DoC)

Level 1

- Signed DoC
- Description of device

Compliance Folder Contents

Level 2

- Signed DoC
- Technical description of device
- Reasonable evidence of compliance
  - Accredited test report or
  - Non accredited test report or
  - FCC equipment grant + evidence to show that device meets Australian specific criteria

Compliance Folder Contents

Level 3

- Signed DoC
- Technical description of device
- Accredited test report showing compliance with a mandatory standard
  - NATA or IANZ accredited or
  - Accreditation body with a MRA with NATA or IANZ

Declaration Of Conformity

- Must be signed by manufacturer, importer or agent
- Responsible senior person within company
- Must have adequate evidence of compliance
- Can be used for variants
- Variants must be identified, rationale must be in compliance folder

Compliance Folder

- Can be stored overseas, but must be available for ACA audit in 10 days
- DoC must be held in Australia
- Can be stored electronically - hard copy must be produced for audit
- Must be kept for 5 years after last sale

Labelling Requirements

- C-tick Compliance label must be affixed with
  - unique supplier identification OR
  - C-tick supplier code OR
  - CAN number OR
  - Registered trademark OR
  - Name and Address

N1234

SAME AS EMC REGULATIONS

C-tick
Labelling Requirements

- Obtain written authorisation prior to use of C-tick mark
- It is a protected trademark
- No fee
- Only issued to Australian based suppliers

SAME AS EMC REGULATIONS

C-tick Label

- Location
  - External surface, near ID label
  - On packaging when not possible on device
- Method
  - Must be durable, not easily removed
- Scale
  - Legible ≥ 3mm
  - Characters ≥ 1mm

SAME AS EMC REGULATIONS

C-tick Label

- Colour
  - Any colour, must be visible
- Application
  - Any point prior to marketing, in Australia or overseas
- Can be used on promotional material

SAME AS EMC REGULATIONS

Audit Procedures

- ACA conducts audits
  - At random
  - Written complaints
  - Interference complaints
  - Market surveillance

SAME AS EMC REGULATIONS

Offences

- Unauthorised use of C-Tick
- Selling unlabelled products
- Selling/labelling non-compliant products
- Making a false DoC
- Not keeping a compliance folder

SAME AS EMC REGULATIONS

Penalties

- Same as for C-tick

SAME AS EMC REGULATIONS

Other Information

- EMC Technologies Ltd
  - Melbourne
  - Sydney
  - Brisbane
  - Auckland, NZ Andrew Cutler, Manager
    Accredited Radio Testing Laboratory
  - www.emctech.com.au
- AMCA Area Office
  - www.acma.gov.au